6AK10

Compactron Triple Triode

- COLOR TV TYPE
- IMPROVED LINEARITY
- HIGH GAIN
- TRANSCONDUCTANCE = 7000 MICROMHOS
- AMPLIFICATION FACTOR = 53

The 6AK10 is a compactron containing three high-mu triodes. It is designed primarily for service as a color-difference amplifier in color television receivers and is particularly suited for use with solid-state demodulators.

GENERAL

ELECTRICAL

Cathode - Coated Unipotential

Heater Characteristics and Ratings

Heater Voltage, AC or DC★ .... 6.3 ± 0.6 Volts

Heater Current● .... 0.9 Amperes

Direct Interelectrode Capacitances, approximate♦

	Section 1	Section 2	Section 3	
Grid to Plate: (g to p)	3.2	3.0	3.0	pf
Input: g to (h + k)	4.2	4.2	4.2	pf
Output: p to (h + k)	0.3	0.4	0.54	pf

MECHANICAL

Operating Position - Any

Envelope - T-9, Glass

Base - E12-70, Button 12-Pin

Outline Drawing - EIA 9-59

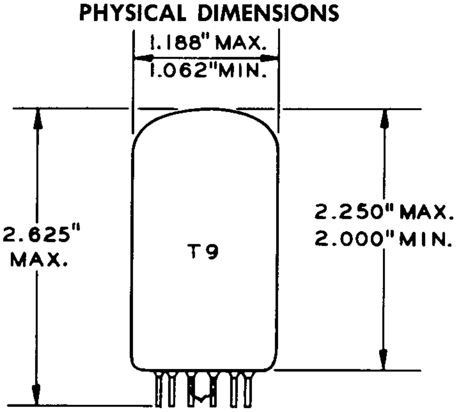
Maximum Diameter	1.188	Inches
Minimum Diameter	1.062	Inches
Maximum Over-all Length	2.625	Inches
Maximum Seated Height	2.250	Inches
Minimum Seated Height	2.000	Inches

MAXIMUM RATINGS

DESIGN-MAXIMUM VALUES, EACH SECTION

Plate Voltage	330	Volts
Plate Dissipation	2.0	Watts
Heater-Cathode Voltage		
Heater Positive with respect to Cathode		
DC Component	100	Volts
Total DC and Peak	200	Volts
Heater Negative with respect to Cathode		
Total DC and Peak	200	Volts
Grid Circuit Resistance	0.5	Megohms

PHYSICAL DIMENSIONS

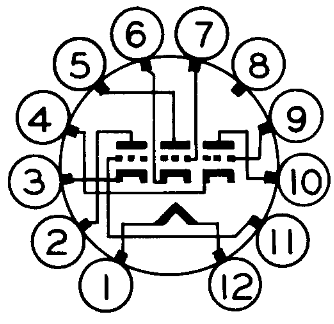


EIA 9-59

TERMINAL CONNECTIONS

Pin 1 - Heater
Pin 2 - Plate (Section 3)
Pin 3 - Cathode (Section 3)
Pin 4 - Cathode (Section 1)
Pin 5 - Plate (Section 2)
Pin 6 - Cathode (Section 2)
Pin 7 - Grid (Section 2)
Pin 8 - No Connection
Pin 9 - Grid (Section 1)
Pin 10 - Plate (Section 1)
Pin 11 - Grid (Section 3)
Pin 12 - Heater

BASING DIAGRAM



EIA 12FE

The tubes and arrangements disclosed herein may be covered by patents of General Electric Company or others. Neither the disclosure of any information herein nor the sale of tubes by General Electric Company conveys any license under patent claims covering combinations of tubes with other devices or elements. In the absence of an express written agreement to the contrary, General Electric Company assumes no liability for patent infringement arising out of any use of the tubes with other devices or elements by any purchaser of tubes or others.

MAXIMUM RATINGS (Cont'd)

Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey electron tube of a specified type as defined by its published data and should not be exceeded under the worst probable conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube, making allowance for the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of all other electron devices in the equipment.

CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS, EACH SECTION

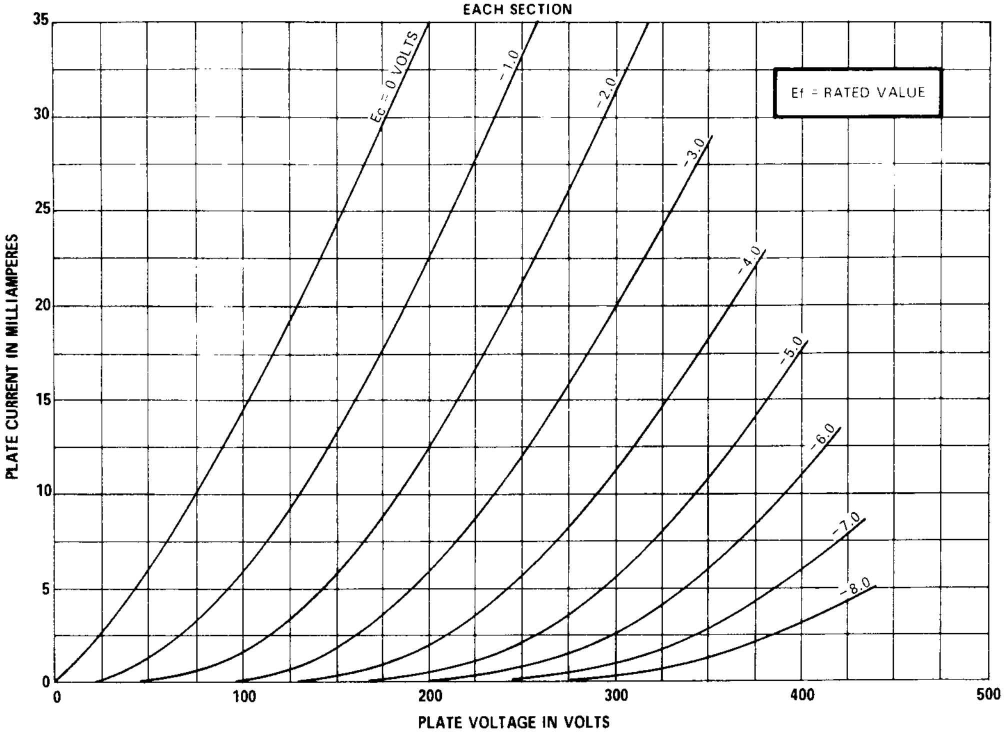
Plate Voltage	200	Volts
Cathode-Bias Resistor	230	Ohms
Amplification Factor	53	
Plate Resistance, approximate	7500	Ohms
Transconductance	7000	Micromhos
Plate Current	10	Milliamperes
Grid Voltage, approximate		
Ib = 100 Microamperes	−7	Volts

NOTES

- ★ The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.
- ● Heater current of a bogey tube at Ef = 6.3 volts.
- ♦ Without external shield.

AVERAGE PLATE CHARACTERISTICS

EACH SECTION

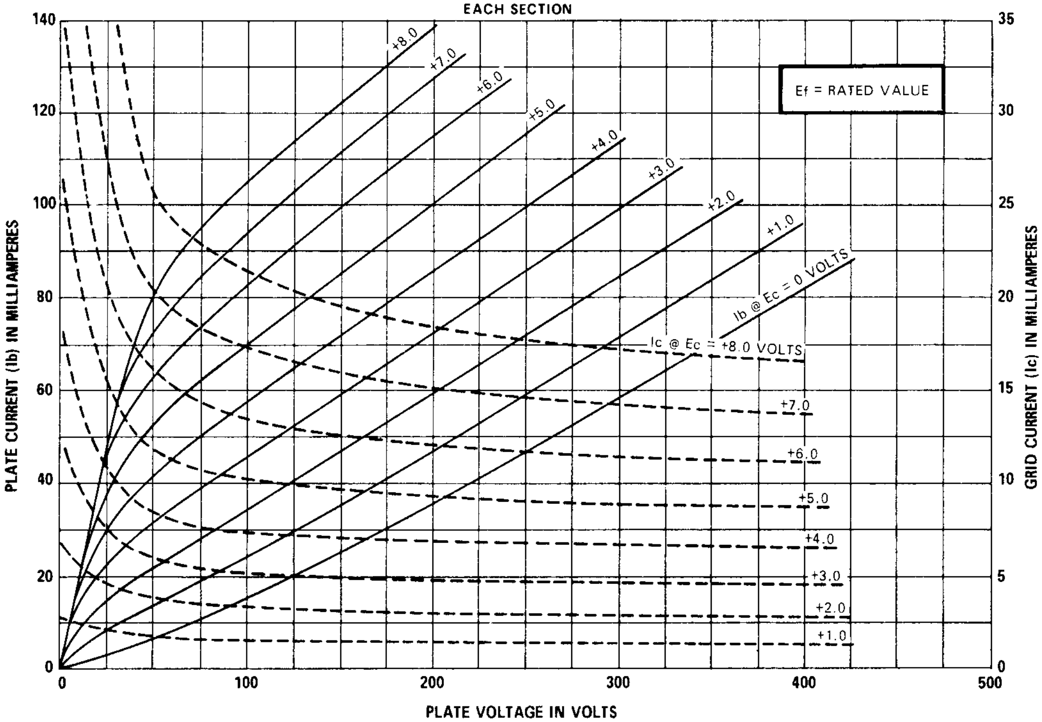


K-55611-TD358-1

August 30, 1968

AVERAGE PLATE CHARACTERISTICS

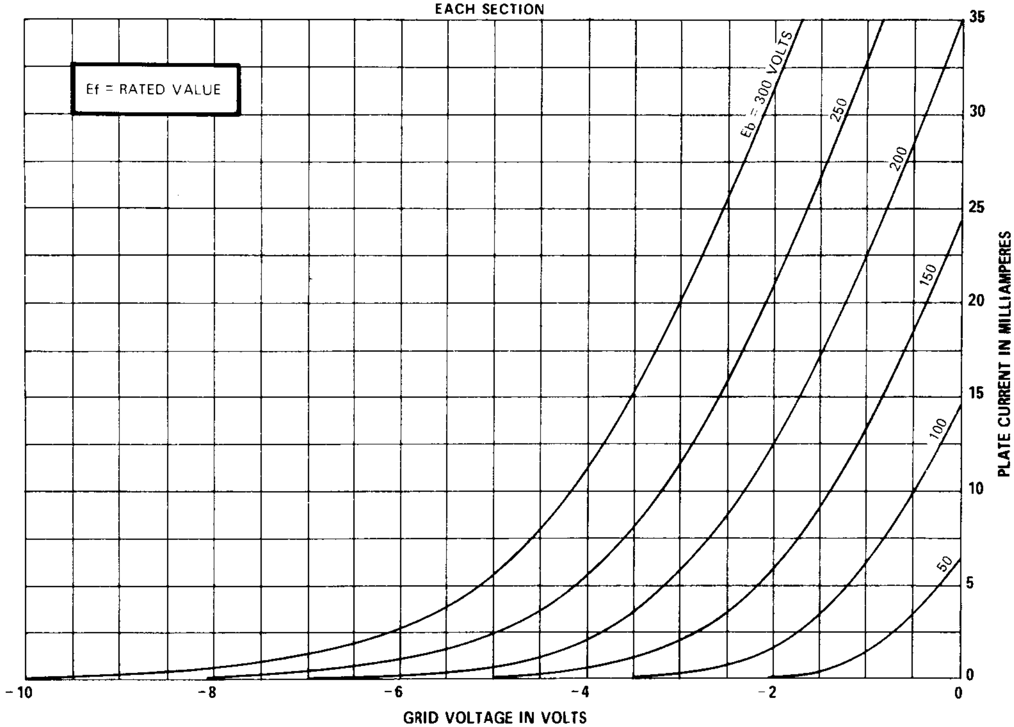
EACH SECTION



K-55611-TD358-2 August 30, 1968

AVERAGE TRANSFER CHARACTERISTICS

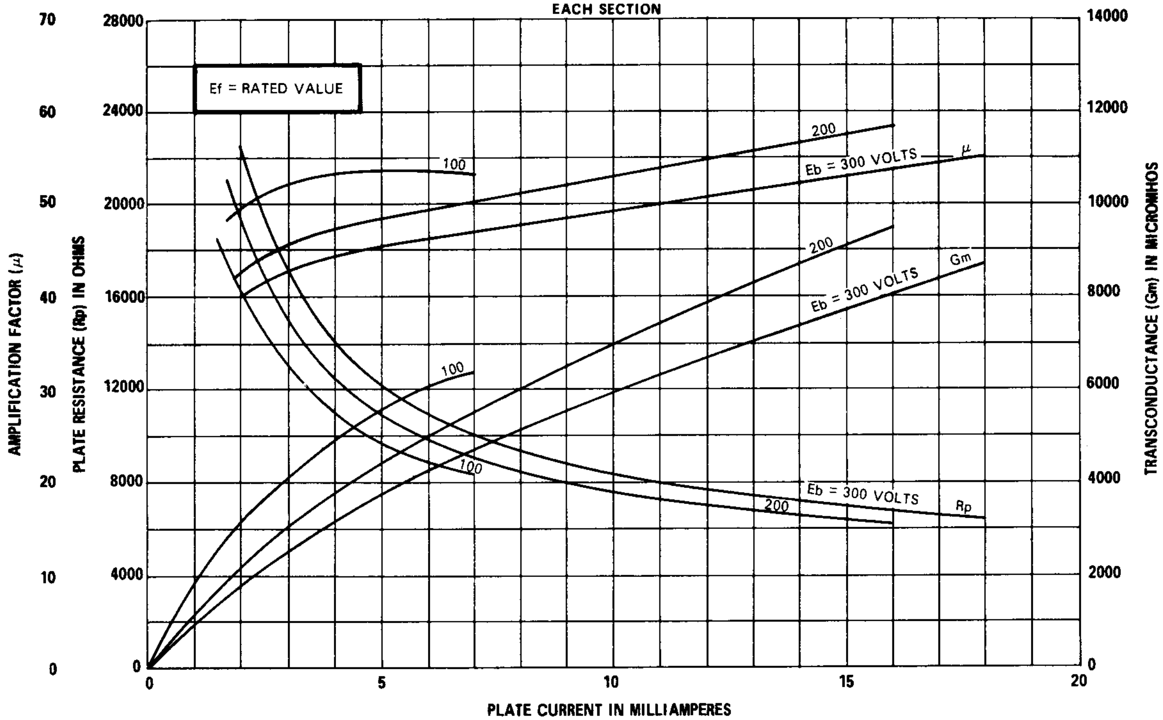
EACH SECTION



K-55611-TD358-3 August 30, 1968

AVERAGE CHARACTERISTICS

EACH SECTION



K-55611-TD358-4

August 30, 1968